

(FILE 'HOME' ENTERED AT 14:11:55 ON 16 JUL 2003)

FILE 'CAPLUS, USPATFULL, JAPIO, EUROPATFULL' ENTERED AT 14:12:14 ON 16  
JUL 2003

L1           3 S POSITIVE (3W) ANTIREFLECTIVE  
L2       10370 S ANTIREFLECTIVE  
L3       8456 S ACID LABILE OR ACID CLEAVABLE OR ACID CLEAVING  
L4       121 S L2 AND L3  
L5       3 S (ACID LABILE OR ACID CLEAVABLE OR ACID CLEAVING) (10A) ANTIRE

=>

L Number	Hits	Search Text	DB	Time stamp
1	20	antireflective near3 (photoacid or onium or sulfonium)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/16 13:53
2	24	positive near3 antireflective	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/16 13:53
3	17	(antireflective near3 (photoacid or onium or sulfonium)) and (positive near3 antireflective)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/16 14:00
4	0	positive adj antireflective	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/16 14:00
5	5	positive adj3 antireflective	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/16 14:00

L Number	Hits	Search Text	DB	Time stamp
3	4	(antireflective near5 (imaging or imageable or photoimaging or photoimageable)) and (antireflective near5 (developable or developing))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/17 18:56
1	51	antireflective near5 (imaging or imageable or photoimaging or photoimageable)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/17 18:57
2	26	antireflective near5 (developable or developing)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/17 19:35

- ☒ (0) (antireflective near15 (acid adj cleaving or acid adj cleavable or acid adj labile))
- ☒ Saved
- ☒ (20) antireflective near3 (photoacid or onium or sulfonium)
- ☒ (24) positive near3 antireflective
- ☒ (17) (antireflective near3 (photoacid or onium or sulfonium)) and (positive near3 antireflective)
- ☒ (0) positive adj antireflective
- ☒ (5) positive adj3 antireflective
- ☒ (1226) 430/271.1.ccls.
- ☒ (4770) acid adj (labile or cleaving or cleavable)
- ☒ (47) 430/271.1.ccls. and (acid adj (labile or cleaving or cleavable))
- ☒ (0) (antireflective near5 (binder or polymer)) near5 (acid adj cleaving)
- ☒ (0) (antireflective near5 (binder or polymer)) near5 (acid adj cleavable)
- ☒ (1) (antireflective near5 (binder or polymer)) near5 (acid adj labile)
- ☒ (2) positive adj working adj3 antireflective
- ☒ (2) antireflective near15 (acid adj cleaving or acid adj cleavable or acid adj labile)
- ☒ Favorites

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=> s positive (3w) antireflective  
L1 3 POSITIVE (3W) ANTIREFLECTIVE

=> d 1-3 bib kwic

L1 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2003 ACS  
AN 2003:532217 CAPLUS  
TI **Positive**-working photoimageable bottom **antireflective**  
coating  
IN Oberlander, Joseph E.; Dammel, Ralph R.; Ding-Lee, Shuji; Neisser, Mark  
O.; Toukhy, Medhat A.  
PA USA  
SO U.S. Pat. Appl. Publ., 12 pp.  
CODEN: USXXCO  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003129531	A1	20030710	US 2002-42532	20020109
PRAI	US 2002-42532		20020109		
TI	<b>Positive</b> -working photoimageable bottom <b>antireflective</b> coating				

L1 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2003 ACS  
AN 2002:104740 CAPLUS  
DN 136:158856  
TI Antireflective coating compositions  
IN Trefonas, Peter, III; Docanto, Manuel; Pavelchek, Edward K.  
PA Shipley Company LLC, USA  
SO Eur. Pat. Appl., 19 pp.  
CODEN: EPXXDW  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1178354	A1	20020206	EP 2001-306538	20010727
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	US 2002031729	A1	20020314	US 2001-918399	20010730
	JP 2002072489	A2	20020312	JP 2001-231972	20010731
PRAI	US 2000-222140P	P	20000731		

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT Antireflective films  
**Positive** photoresists  
(**antireflective** coating compn. contg. basic compd. to reduce  
notching of overcoated photoresist release image)

L1 ANSWER 3 OF 3 USPATFULL  
 AN 2003:187742 USPATFULL  
 TI **Positive**-working photoimageable bottom **antireflective**  
 coating  
 IN Oberlander, Joseph E., Phillipsburg, NJ, UNITED STATES  
 Dammel, Ralph R., Flemington, NJ, UNITED STATES  
 Ding-Lee, Shuji, Branchburg, NJ, UNITED STATES  
 Neisser, Mark O., Whitehouse Station, NJ, UNITED STATES  
 Toukhy, Medhat A., Flemington, NJ, UNITED STATES  
 PI US 2003129531 A1 20030710  
 AI US 2002-42532 A1 20020109 (10)  
 DT Utility  
 FS APPLICATION  
 LREP CLARIANT CORPORATION, ATTENTION, INDUSTRIAL PROPERTY DEPT., 70 MEISTER  
 AVENUE, SOMERVILLE, NJ, 08876  
 CLMN Number of Claims: 47  
 ECL Exemplary Claim: 1  
 DRWN No Drawings  
 LN.CNT 1241  
 TI **Positive**-working photoimageable bottom **antireflective**  
 coating  
 AB The present invention relates to a novel absorbing, photoimageable and  
 aqueous developable **positive**-working **antireflective**  
 coating composition comprising a photoacid generator and a polymer  
 comprising at least one unit with an acid labile group and. . .  
 process for using such a composition. The present invention also relates  
 to a novel absorbing, photoimageable and aqueous alkali developable  
**positive**-working **antireflective** coating composition  
 comprising a polymer comprising at least one unit with an acid labile  
 group, a dye and a photoacid. . . to a novel process for forming a  
 positive image with a positive photoresist and a novel photoimageable  
 and aqueous developable **positive**-working  
**antireflective** coating composition, where the antireflective  
 coating comprises a polymer comprising an acid labile group. The  
 invention further relates to such. . .  
 SUMM [0011] The novel approach of the present application is to use an  
 absorbing, photoimageable **positive** working bottom  
**antireflective** coating that can be developed by an aqueous  
 alkaline solution, rather than be removed by dry etching. Aqueous  
 removal of. . .  
 SUMM [0019] The novel antireflective composition of the present invention  
 relates to a photoimageable, aqueous alkali developable,  
**positive**-working **antireflective** coating that is imaged  
 with the same wavelength of light as is used to expose the positive  
 photoresist, and thus. . .  
 SUMM [0020] The present invention relates to a **positive** bottom  
 photoimageable **antireflective** coating composition which is  
 capable of being developed in an aqueous alkaline developer and which is  
 coated below a **positive** photoresist, where the  
**antireflective** coating composition comprises a photoacid  
 generator and a polymer comprising at least one unit with an acid labile  
 group and. . .  
 SUMM [0021] The invention also relates to a **positive** bottom  
 photoimageable **antireflective** coating composition which is  
 capable of being developed in an aqueous alkaline developer and which is  
 coated below a **positive** photoresist, where the  
**antireflective** coating composition comprises a photoacid  
 generator, a dye and a polymer comprising at least one unit with an acid  
 labile. . .  
 SUMM [0022] The invention also relates to a **positive** bottom  
 photoimageable **antireflective** coating composition which is  
 capable of being developed in an aqueous alkaline developer and which is  
 coated below a **positive** photoresist, where the

**antireflective** coating composition comprises a polymer comprising at least one unit with an acid labile group. The invention further relates to. . .

SUMM [0029] The present invention relates to a novel absorbing, photoimageable and aqueous developable **positive-working antireflective** coating composition comprising a photoacid generator and a polymer comprising at least one unit with an acid labile group and. . . process for using such a composition. The present invention also relates to a novel absorbing, photoimageable and aqueous alkali developable **positive-working antireflective** coating composition comprising a polymer comprising at least one unit with an acid labile group, a dye and a photoacid. . . relates to a process for using such a composition. The invention also relates to a novel photoimageable and aqueous developable **positive-working antireflective** coating composition, comprising a polymer comprising an acid labile group. The invention further relates to a process for using such. . .

SUMM . . . polymer soluble in the aqueous alkali developing solution. A subsequent developing step then dissolves the exposed regions of both the **positive** photoresist and the **antireflective** coating, leaving the substrate clear for further processing.

CLM What is claimed is:

1. A **positive** bottom photoimageable **antireflective** coating composition which is capable of being developed in an aqueous alkaline developer and which is coated below a **positive** photoresist, where the **antireflective** coating composition comprises a photoacid generator and a polymer comprising at least one unit with an acid labile group and. . .
15. A **positive** bottom photoimageable **antireflective** coating composition which is capable of being developed in an aqueous alkaline developer and which is coated below a **positive** photoresist, where the **antireflective** coating composition comprises a photoacid generator, a dye and a polymer comprising at least one unit with an acid labile. . .
29. A **positive** bottom photoimageable **antireflective** coating composition which is capable of being developed in an aqueous alkaline developer and which is coated below a **positive** photoresist, where the **antireflective** coating composition comprises a polymer comprising at least one unit with an acid labile group.

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